

DISCUSSION OF THE AMENDMENT

A substitute specification is being filed in place of the original specification. **The substitute specification contains no new matter.**

Claim 7 has been rearranged so that equation (2) now makes explicit what was at least implicit.

No new matter is believed to have been added by the above amendment. Claims 1-52 remain pending in the application.

REMARKS

Due to the length of the specification herein, Applicants will cite to the paragraph number of the published patent application (PG Pub) of the present application, i.e., US 2005/0181941, when discussing the application description, rather than to page and line of the specification as filed.

The rejections of Claims 1-37 under 35 U.S.C. § 102(b) as anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as obvious over, or as unpatentable over, WO 01/13390, as evidenced by its US patent equivalent US 7,214,646 (Fujino et al); and of Claims 38-52 under 35 U.S.C. § 103(a) as unpatentable over Fujino et al, are respectfully traversed.

Fujino et al is drawn to a process for producing activated carbon for an electrode of an electric double-layer capacitor (column 1, lines 7-9). As described by Fujino et al under "BACKGROUND ART," beginning at column 1, line 11, so-called alkali-activated carbon, which is a carbonized powder made using a graphitizable carbon powder, e.g., mesophase pitch as a starting material, and made by a process comprising a step of producing a fibrous material by spinning using mesophase pitch, a step of subjecting the fibrous material to an infusibilizing treatment and then to a carbonizing treatment, a step of subjecting the carbonized material to an alkali activating treatment and then to a pulverizing treatment, or to a pulverizing treatment and then to an alkali activating treatment, is conventionally known (column 1, lines 13-25). Such a process is problematical, for reasons described (column 1, line 26ff). Fujino et al addresses the problems with various process embodiments for producing activating carbon for an electrode of an electric double-layer capacitor.

One process comprises a step of subjecting a massive mesophase pitch to a pulverizing treatment to provide a pulverized powder, a step of subjecting the pulverized powder to an infusibilizing treatment under conditions of a temperature in a range of 300°C (inclusive) to 450°C (inclusive) in the atmospheric air current, a step of subjecting the

pulverized powder to a carbonizing treatment under conditions of a temperature in a range of 600°C (inclusive) to 900°C (inclusive) in an inert gas current to provide a carbonized powder, a step of subjecting the carbonized powder to an alkali activating treatment under conditions of a temperature in a range of 500°C (inclusive) to 1,000°C (inclusive) in an inert gas atmosphere, followed by the post treatments, thereby producing alkali-activated carbon, and a step of subjecting the alkali-activated carbon to a pulverizing treatment, wherein the above steps are carried out in the mentioned order (column 2, lines 8-27).

Another process comprises a step of subjecting a starting material for activated carbon and containing a metal compound incorporated therein to a carbonizing treatment and a subsequent activating treatment (column 2, lines 60-65).

Still another process comprises a step of subjecting a graphitizable carbon powder to an alkali activating treatment to produce activated carbon for an electrode of an electric double-layer capacitor, a mixed activating agent comprising KOH and NaOH being used as an alkali activating agent (column 3, lines 21-28).

Still yet another process comprises a step of subjecting a starting material for activated carbon, which is an aggregate of solids, to an oxygen-adding treatment to provide an oxygen-added material with oxygen dispersed in all the solids, a step of subjecting the oxygen-added material to a carbonizing treatment to provide a carbonized material, and a step of subjecting the carbonized material to an activating treatment to produce activated carbon (column 3, lines 37-46).

In all of the above processes, there is neither disclosure nor suggestion that both the carbonaceous material and the alkali metal hydroxide be maintained in the solid state during mixing, granulating, and dehydrating steps, as recited in present Claim 1 and claims dependent thereon. In Fujino et al., on the other hand, the alkali activating treatment is carried out upon mixing of the alkali activating agent and the carbonized powder to a temperature

which necessarily, given the disclosure of NaOH and KOH therein, is above the melting point of the alkali activating agent. Thus, Fujino et al does not appreciate an advantage of the presently-claimed invention of greatly reducing the corrosion of a device that occurs when manufacturing an alkali-activated carbon, the advantage being obtainable when the carbonaceous material and the alkali metal hydroxide are handled in a solid state, as described in the specification at paragraph [0014].

In view of the significant differences between the presently-recited method of Claim 1, and the processes disclosed by Fujino et al, there is no basis for finding that the dehydration product claimed in Claim 28, or the activated carbon claimed in Claim 30, is anticipated or otherwise suggested by Fujino et al.

With regard to Claims 38 and 39, the subject matter of these claims is not simply hot pressing an activated carbon, contrary to the finding by the Examiner. There is neither disclosure nor suggestion in Fujino et al to carry out the particular steps in Claims 38 and 39. Indeed, Fujino et al fails to disclose or suggest a step of heat treating and pressure molding (Claim 38) or hot pressing (Claim 39) a mixture of a carbonaceous material and an alkali metal-containing activator in the production of activated carbon.

In Claim 38, the significant features thereof reside in conducting heat treating and pressure molding in order to increase the binding capacity of an alkali metal-containing activator in a molded product, as described in the specification beginning at paragraph [0097]. By virtue of this significant feature, the alkali metal activator softens and the entire powder mixture of the carbonaceous material and the alkali metal hydroxide becomes viscous in an intermediate state of the heat treating, and the viscous material is thereafter converted to a solid by means of evaporation of the moisture content, thereby preventing or reducing reactor corrosion, and reducing an amount of impurities.

Nor, for Claim 39, is there any suggestion in Fujino et al that with such hot pressing, high safety can be realized, reactor corrosion can be prevented or reduced, and an amount of impurities can be reduced.

For all the above reasons, it is respectfully requested that the rejections over Fujino et al be withdrawn.

The rejection of Claim 7 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Indeed, the rejection would now appear to be moot in view of the above-discussed amendment. Accordingly, it is respectfully requested that the rejection be withdrawn.

The requirement of a substitute specification is respectfully traversed. According to 37 C.F.R. § 1.125, the Office may require a substitute specification “[i]f the number or nature of the amendments where the legibility of the application papers renders it difficult to consider the application, or to arrange the papers for printing or copying[.]” M.P.E.P. § 608.01(q) specifies that a substitute specification should be required when the specification is “in such faulty English that a new specification is necessary[.]”

Applicants respectfully submit that the English of the originally-filed specification is not so faulty to the extent that a substitute specification should be required. There is no requirement that the English be perfect, nor has the Examiner given any indication of any word or sentence in the specification that is not understood. Moreover, the one example given by the Examiner is perfectly understandable. Nevertheless, a substitute specification has been furnished herein. If the Examiner continues to believe that the substitute specification is insufficient, the Examiner is respectfully requested to point out, by page and line, specifically what portions need correction.

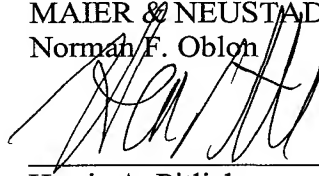
For all the above reasons, it is respectfully requested that the requirement of a substitute specification be withdrawn.

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All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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